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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,364

11/14/2003

Stacy A. Hunt

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WHIRLPOOL PATENTS COMPANY - MD 0750

500 RENAISSANCE DRIVE - SUITE 102

ST. JOSEPH, MI 49085

EXAMINER

GRAY, JILL M

ART UNIT

PAPER NUMBER

1774

MAIL DATE

DELIVERY MODE

06/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/713,364

Applicant(s)

HUNT ET AL.

Examiner

Jill M. Gray

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-17,21-28,30-34 and 37-52 is/are pending in the application.
- 4a) Of the above claim(s) 13-17,22-28,30-34,37-45 and 48-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-12,46 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 5, 9-12 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,207 (Hilpert) in view of Esser 5,609,965, for reasons of record.

Hilpert is as set forth previously and teaches a dish rack comprising a metal frame configured to support dishes and an exterior coating covering at least a portion of the metal frame, wherein the exterior coating protects the metal frame from corrosion, per claim 46. The frame comprises a wire-form having multiple interconnected wires and has a bottom wall and a peripheral wall extending upwardly from the bottom wall with tines located within the dish-holding recess, as required by claims 9-11. Also, Hilpert teaches that the exterior coating covers the entire metal frame as required by claim 12. See Figs. 1 and 2, and page 2, lines 47-52. The exterior coating comprises rubber or similar organic materials as well as natural and synthetic resins. See page 1, line 85 through page 2, and line 2. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. Accordingly, Hilpert teaches an exterior coating that comprises a layer on the metal frame and a polymer layer on said layer. Hilpert does not specifically teach a paint layer.

Esser teaches surface coatings that are coated onto substrates that include a variety of metal surfaces including polished metal surfaces and metal foils. Said coatings can be utilized as paints and produce durable, abrasion-resistant and solvent-resistant surface coatings. Moreover, Esser teaches that these coatings have consumer end-use applications that include durable polymeric film and surface coatings for home use appliances such as dishwashers. See column 5, lines 16-40.

At the time the invention was made, the protecting metal surfaces in dishwashers from corrosion and deterioration by providing protective coatings was known in the art, as evidenced by the teachings of Hilpert. In particular, Hilpert provides a suggestion for multi-layer protective coatings through his teachings of a metal layer on the metal frame and a polymer layer on said layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to form a dish rack as taught by Hilpert, wherein the coated metal frame is modified by the addition of a layer of non-metallic paint applied to the metal frame or metal layer on said metal frame, as taught by Esser, whereby said paint provides durability, abrasion-resistance and solvent-resistance to the metal frame and thereby enhancing the protection of the dish rack from deterioration and corrosion. As to the paint layer being electrocoated, this limitation is drawn to the process of applying the coating, and in general, process limitations add no patentable weight to an instant claimed product, in the absence of factual evidence to the contrary, said evidence being directly related to the process.

Therefore, the combined teachings of Hilpert and Esser would have rendered obvious the invention as claimed in present claims 5, 9-12 and 46.

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3. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Esser 5,609,965 as applied above to claims 5, 9-12, and 46, and further in view of Richart 3,640,747, for reasons of record.

Hilpert and Esser are as set forth above and do not teach the application of polyvinyl chloride or a polyvinyl chloride blend. Richart teaches protective vinyl coatings that are tough, durable, inexpensive and fairly resistant to chemical attacks, wherein said coatings can be used as the coating of dish racks for use in automatic dishwashers. See column 1, lines 8-18 and 33-45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hilpert by substituting the rubber coating with a vinyl coating as taught by Richart, with the reasonable expectation of success of producing a dish rack that is tough, durable, resistant to chemical attacks and inexpensive.

Therefore, the combined teachings of Hilpert, Esser and Richart would have rendered obvious the invention as claimed in present claims 6-8.

4. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al, US 2001/0032825 A1 (Hess) in view of Hilpert et al. 1,902,237 (Hilpert) and Esser 5,609,965 as applied to claims 5, 9-12, and 46 above, and for reasons of record.

Hess teaches an automated dishwasher comprising a wash tub having a top, bottom, side and rear walls, which collectively form an open-faced wash chamber, a door hingedly mounted relative to the wash tub for movement between an open and closed condition, a dish rack located within the open-faced wash chamber and comprising a metal frame configured to support dishes; and an exterior coating covering

at least a portion of the metal frame comprising a layer of plastic. See Figure 1 and [005]. Hess does not specifically teach an electrocoated layer on the metal frame or a polymer layer on the electrocoated layer.

As set forth above, the requirement that the layer be electrocoated is drawn to the process of making and does not add patentable weight to the instant claims. Hilpert is as set forth above and teaches a dish rack comprising a metal frame configured to support dishes, an exterior coating covering at least a portion of the metal frame that protects the metal frame from corrosion whereby said exterior coating can be a metallic layer on the metal frame and a polymer layer on said metallic layer. Esser teaches that the application of protective paint coatings on metal substrates to provide durability, abrasion-resistance, and solvent-resistance. It would have been obvious to modify the coated dish rack of Hess by including a non-metallic paint layer to provide added protection to the metal frame of the dish rack against oxidation and corrosion.

5. Claims 5, 9-12, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Uchida et al, 3,501,278 (Uchida), for reasons of record.

Hilpert is as set forth previously and teaches a dish rack comprising a metal frame configured to support dishes and an exterior coating covering at least a portion of the metal frame, wherein the exterior coating protects the metal frame from corrosion, per claim 46. The frame comprises a wire-form having multiple interconnected wires and has a bottom wall and a peripheral wall extending upwardly from the bottom wall with tines located within the dish-holding recess, as required by claims 9-11. Also,

Hilpert teaches that the exterior coating covers the entire metal frame as required by claim 12. See Figs. 1 and 2, and page 2, lines 47-52. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. The exterior coating comprises rubber or similar organic materials as well as natural and synthetic resins. See page 1, line 85 through page 2, and line 2. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. Accordingly, Hilpert teaches an exterior coating that comprises a layer on the metal frame and a polymer layer on said layer. Hilpert does not specifically teach a paint layer.

Uchida teaches a process for electrodeposition of paint onto metal surfaces such as zinc plated steel. His process includes the application of a chromium plating onto the zinc plating followed by the electrodeposition of a non-metallic paint. This results in good corrosion protection and the prevention of red rusting. See abstract, column 1, lines 31-50 and column 2, lines 16-20.

Uchida recognizes the same problem as applicants and Hilpert, namely, the deterioration and corrosion of metal surfaces such as steel coated with zinc, and seeks to solve this problem in a manner similar to applicants and Hilpert through the application of various protective coatings onto said metal surfaces. Accordingly, the teachings of Uchida are reasonably pertinent to the particular problem with which the inventor is concerned. It is of no moment that Uchida does not specifically teach the electrodeposition of his paint coatings onto metal frames in dish racks.

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Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in this art to modify the teachings of Hilpert by electrodepositing a non-metallic paint onto the metal frame or metal coated metal frame, with the reasonable expectation of success of obtaining a dish rack that has good corrosion resistance and is satisfactorily prevented from rusting.

As a result, the combined teachings of Hilpert and Uchida would have rendered obvious the invention as claimed in present claims 5, 9-12 and 46.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Uchida et al, 3,501,278 (Uchida) each as applied above to claims 5,9-12, and 46, and further in view of Richart 3,640,747.

Hilpert and Uchida are as set forth above and do not teach the application of polyvinyl chloride or a polyvinyl chloride blend. Richart teaches protective vinyl coatings that are tough, durable, inexpensive and fairly resistant to chemical attacks, wherein said coatings can be used as the coating of dish racks for use in automatic dishwashers. See column 1, lines 8-18 and 33-45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hilpert by substituting the rubber coating with a vinyl coating as taught by Richart, with the reasonable expectation of success of producing a dish rack that is tough, durable, resistant to chemical attacks and inexpensive.

Therefore, the combined teachings of Hilpert, Uchida and Richart would have rendered obvious the invention as claimed in present claims 6-8.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al, US 2001/0032825 (Hess) in view of Hilpert et al, 1,902,237 and Uchida et al, 3,501,278 (Uchida), for reasons of record.

Hess teaches an automated dishwasher comprising a wash tub having a top, bottom, side and rear walls, which collectively form an open-faced wash chamber, a door hingedly mounted relative to the wash tub for movement between an open and closed condition, a dish rack located within the open-faced wash chamber and comprising a metal frame configured to support dishes; and an exterior coating covering at least a portion of the metal frame comprising a layer of plastic. See Figure 1 and [005]. Hess does not specifically teach an electrocoated layer on the metal frame or a polymer layer on the electrocoated layer. Hilpert is as set forth above and teaches a dish rack comprising a metal frame configured to support dishes, an exterior coating covering at least a portion of the metal frame that protects the metal frame from corrosion whereby said exterior coating can be a metallic layer on the metal frame and a polymer layer on said metallic layer. Uchida teaches that the electrodeposition of protective non-metallic paint coatings onto metal substrates to provide corrosion resistance and prevention from rusting. It would have been obvious to modify the coated dish rack of Hess by including an electrodeposited non-metallic paint layer to provide added protection to the metal frame of the dish rack against rusting and corrosion.

Therefore, the combined teachings of Hess, Hilpert and Uchida would have rendered obvious the invention as claimed in present claim 47.

Response to Arguments

8. Applicant's arguments filed March 15, 2007 have been fully considered but they are not persuasive.

Applicants argue that Hilpert is devoid of a paint layer, specifically an electrocoated, non-metallic paint layer and is also devoid of the polymer layer being on an electrocoated, non-metallic paint layer as recited in claim 46. Applicants further argue that the combination of Hilpert and Esser are devoid of an exterior coating comprising an electrocoated, non-metallic paint layer on the metal frame and a polymer layer on the electrocoated, non-metallic paint layer as recited in claim 46.

In response thereto, it is the examiner's position that the combination of the disclosures of Hilpert and Esser taken as a whole would suggest to one having ordinary skill in the art the inclusion of a non-metallic paint layer on the metal frame of Hilpert to result in a more durable, abrasion-resistant and solvent-resistant surface coating. As to this layer being electrocoated, it is the position of the examiner that this requirement is drawn to the process by which the paint layer is applied, or more specifically, a method of making within a product claim, and therefore is not germane. Alternatively, there is no clear factual evidence on this record of unexpected or superior properties of the resultant dish rack and dishwasher that are directly related to the paint layer being electrocoated.

Applicants argue that the addition of Richart does not yield the invention as recited in claim 46, which claims 6-8 include by dependency.

In this regard, the examiner's response set forth above is incorporated herein.

Applicants argue that Hess is devoid of an exterior coating comprising an electrocoated, non-metallic paint layer on the metal frame and a polymer layer on the electrocoated, non-metallic paint layer as recited in claim 47 and that Hilpert and Esser are devoid of an exterior coating comprising an electrocoated, non-metallic paint layer on the metal frame and a polymer layer on the electrocoated, non-metallic paint layer as recited in claim 47.

In this regard, it is the examiner's position that the test for obviousness under 35 U.S.C. 103 is not the express suggestion of the claimed invention in any or all of the references but what the references taken collectively would suggest. In the instant case, the collective disclosures of Hess, Hilpert and Esser would have suggested a dishwasher essentially as claimed, wherein the metal frame is coated with an exterior coating comprising a non-metallic paint layer on the metal frame and a polymer layer on the non-metallic metal frame. Again, as set forth above, the requirement that the paint be electrocoated is a process limitation that adds no patentable weight in the instant claims in the absence of factual evidence to the contrary.

Applicants again argue that Hilpert is devoid of a paint layer, specifically an electrocoated non-metallic paint layer and a polymer layer being on an electrocoated, non-metallic paint layer as recited in claim 46 and that Uchida is relevant only for its disclosure of electrodepositing a paint coating directly on zinc plated steel. Applicants also argue that the references taken singly or in combination, do not disclose a polymer layer being on an electrocoated, non-metallic paint layer as recited in claim 46, from which claims 5 and 9-12 depend.

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In response thereto, it is the examiner's position that the combination of the disclosures of Hilpert and Uchida taken as a whole would suggest to one having ordinary skill in the art the inclusion of a non-metallic paint layer on the metal frame of Hilpert to result in a more durable, abrasion-resistant and solvent-resistant surface coating. As to this layer being electrocoated, it is the position of the examiner that this requirement is drawn to the process by which the paint layer is applied, or more specifically, a method of making within a product claim, and therefore is not germane. Alternatively, there is no clear factual evidence on this record of unexpected or superior properties of the resultant dish rack and dishwasher that are directly related to the paint layer being electrocoated.

Regarding claims 6-8, applicants argue that it would not be obvious to one skilled in the art to add an exterior coating to a dish rack wherein the exterior coating comprises an electrocoated, non-metallic paint layer on the metal frame and a polymer layer on the electrocoated, non-metallic paint layer as recited in claim 46, which claims 6-8 include by dependency, in view of Hilpert, Uchida and Richart.

In this regard, the examiner's position is as set forth previously in this Office Action and is incorporated herein.

Applicants argue that the combination of Hess and Hilpert is devoid of a paint layer, specifically an electrocoated, non-metallic paint layer and a polymer layer being on an electrocoated, non-metallic paint layer as recited in claim 47 and that although Uchida discloses electrodepositing a paint coating directly on zinc plated steel, the

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references are devoid of an electrocoated, non-metallic paint layer on the metal and a polymer layer being on an electrocoated, non-metallic paint layer as recited in claim 47.

In this concern, the examiner's position is as set forth above and incorporated herein, wherein the collective disclosures of Hell, Hilpert and Uchida would have rendered obvious the dishwasher as claimed in claim 47.

No claims are allowed.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

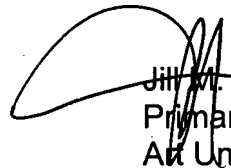
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jill M. Gray
Primary Examiner
Art Unit 1774

jmg